

Notice of Allowability	Application No.	Applicant(s)
	10/657,114	TSAI ET AL.
	Examiner	Art Unit
	Tuan A Vu	2124

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 9/23/04.
2. The allowed claim(s) is/are 17.
3. The drawings filed on 09 September 2003 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date 20050126.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 9/23/2004.

As indicated in Applicant's response, claims 1-16 have been canceled and claim 17 added. Claim 17 is pending in the office action.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

ABSTRACT:

Replace the whole ABSTRACT with the following amendment:

A method for updating firmware of a computer device to write the newer firmware into the computer memory twice is disclosed. It includes dividing a memory of the a computer device into five portions, wherein an initial program, an old program, an old backup firmware, the checksum of the old firmware, and the checksum of the old backup firmware is are saved, respectively, in the first portion, an old firmware is saved in the second portion, an old backup firmware is saved in the third portion, the checksum of the old firmware is saved in the fourth portion and the checksum of the old backup firmware is saved in the fifth portion; executing the initial program in the first portion; writing a new firmware into the second portion from an external device for replacing the old firmware in the second portion; writing the checksum of the new firmware into the fourth portion from the external device; writing the new firmware into the

third portion ~~from the external device~~ for replacing the old backup firmware ~~in the third portion~~; writing the checksum of the new firmware into the fifth portion ~~from the external device~~; and executing the new firmware in the second portion for operating the computer device.

Authorization for this examiner's amendment was given in a telephone interview with Ken Burner, Reg. # 37093 on January 26, 2005.

In the Specifications:

Page 1, REINSERT the second paragraph (previously deleted, now amended) immediately under the section untitled: **Description of the Prior Art**, as follows:

The current firmware upgrade technology is performed by the computer special software (initial program) along with the firmware. Said software will read the upgraded firmware data directly, and transmit it to the computer device via variable interfaces. Such computer device will delete the original firmware in the computer memory first and write the new firmware data into its memory so as to finish upgrading and updating the firmware.

Page 2, amend the first full paragraph (lines 7-10) with the following:

The disadvantage of this technology is that if the power failure or other uncertain events happen upon upgrading and updating the firmware ~~and it incur the such that it causes~~ a failure in writing the upgraded firmware, the original firmware in the memory can be destroyed or deleted, and the upgraded firmware is not completely installed in the computer memory yet. Therefore, such computer device will not function normally.

Page 4, REINSERT the following amended paragraphs (previously deleted - starting at line 8) through **page 5** (previously deleted - lines 1-19) as follows.

Based on the idea described above, wherein said computer device includes a scanner.

Based on the aforementioned idea, wherein the step of executing said initial program further comprises verifying the correctness of said old firmware program in the second portion by checking the checksum of said old firmware in the fourth portion; verifying the correctness of said old backup firmware program in the third portion by checking the checksum of said old firmware in the fifth portion; and verifying the identity of said old firmware program and said old backup firmware program.

Based on the idea described above, wherein the step of verifying the correctness of said old firmware program further comprises writing said old backup firmware program in the third portion into the second portion for renew said old firmware program when said old firmware program is defective; and writing the checksum of said old backup firmware program in the fifth portion into the fourth portion for renew the checksum of said old firmware program.

Based on the aforementioned idea, wherein the step of verifying the correctness of said old backup firmware program further comprises writing said old firmware program in the second portion into the third portion for renew said old backup firmware program when said old backup firmware program is defective; and writing the checksum of said old firmware program in the fourth portion into the fifth portion for renew the checksum of said old backup firmware program.

Based on the idea described above, wherein the step of verifying

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

3. Claim 17 is allowed.

The following is an examiner's statement of reasons for allowance.

The prior art of record, (USPN: 6,360,362; USPN: 6,665,813; USPN: 6,357,021) taken alone or in combination fails to teach or suggest all the claimed features or step limitations as recited in claim 17, and the reasons for this is convincingly shown and explained in the arguments by Applicants (Appl. Rmrks, pg. 8) as submitted and filed 9/23/2004.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

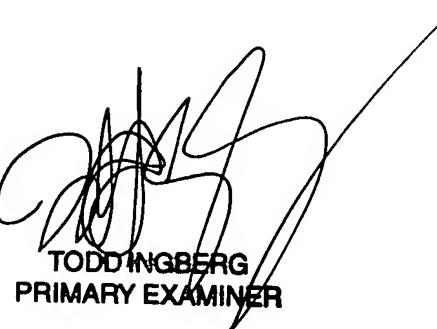
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571)272-3719.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence – please consult Examiner before using) or 703-872-9306 (for official correspondence) or redirected to customer service at 571-272-3609.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAT
January 26, 2005



TODD INGBERG
PRIMARY EXAMINER